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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,952	02/11/2004	Lester J. Kozlowski	354096.01201	4236

7590 08/09/2005  
Doyle B. Johnson  
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San Francisco, CA 94120-7936

EXAMINER
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MOE, AUNG SOE

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/776,952

Applicant(s)

KOZLOWSKI ET AL.

Examiner

Aung S. Moe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-11 is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☒ Claim(s) 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) .<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the legal phraseology such as "comprising" as set forth in line 1 of the abstract should be changed. The Examiner suggests changing the word "comprising" to -- including --. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brehmer et al. (US 2003/0133627 A1) in view of Nitta et al. (U.S. 2002/0047934 A1).

Regarding claim 12, Brehmer '627 discloses a CMOS imager system (i.e., see Figs. 1 and 11) comprising: an active pixel sensor (110; see page 2, paragraph 0026); a column buffer (140) connected to the active pixel sensor (110); and an analog-to-digital (A/D) converter (Fig. 11, the element 1110; see page 3, paragraph 0037) co-located with the active pixel sensor (110) and column buffer (140), such that a transmission path (i.e., noted the path between the elements 140 and the 1110 as shown in Fig. 11) between the column buffer and the A/D converter acts primarily as a resistance, rather than a reactance (i.e., as shown in Figs. 1, 5 and 11, the transmission path, e.g., the COL-OUT 129, carried the flow of current from the current sources 531, thus, the transmission path carrying the flow of electric current between the column buffer 140 and the A/D converter 1110 must act as a resistance).

Moreover, it is noted that although Brehmer '627 shows the use of multi-bit A/D converter 1110, Brehmer '627 does not explicitly that such A/D converter is capable of operating at a high-speed and having greater than or equal to 12 bit resolution as required by present claimed invention.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Nitta '934. In particular, Nitta '934 teaches that it is conventionally well-known in the art to use a high-speed A/D converter (i.e., see Fig. 3, the elements 32B; and Fig. 5) having greater than or equal to 12 bit resolution (i.e., see page 3, paragraphs 0030+ and page 4, paragraphs 0037+) for the purpose of achieving a higher resolution (see paragraphs 0015, 0041 and 0042).

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Brehmer '627 by providing a high-speed A/D converter as taught by Nitta '934, since Nitta '934 suggested in paragraphs 0015, 0041 and 0042 that such a modification would provide a higher resolution while minimizing an increase in power consumption in the imaging system.

***Allowable Subject Matter***

2. Claims 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Claims 2-11 are allowed.

*Conclusion*

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 571-272-7314. The examiner can normally be reached on Flex.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Aung S. Moe  
Primary Examiner  
Art Unit 2685

A. Moe  
August 1, 2005